

LITHOLOGIC LOG

WELL No. EWC004

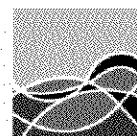
Logged By: Zach Dickson
 Checked By: Michael Rendina
 Driller: Boart Longyear
 Drilling Method: Hand Auger/Sonic
 Sampling Method: Split Spoon
 Sampling Interval: Continuous

Date Started: 5/28/10
 Date Completed: 5/29/10
 Northing: 1768822.119
 Easting: 6470270.773
 Elevation: 51.51
 Boring Depth: 127 feet

Client: The Boeing Company
 Site: Former C-6 Facility
 Location: Los Angeles, California
 Project No.: 1155.013

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Depth (ft)	Sample Number	Sample Depth	Blow Count (per foot)	OVM (ppm)	Graphic Log	Soil Classification	Description	Well Completion Details
0							6" Thick concrete surface, no base material.	
							<u>Note:</u> Upper 10 feet of boring cleared for utilities by geophysical and hand auger methods.	
2								#2/12 Stabilization Sand
4								18" Well Box Set in Concrete
6								
8							Begin drilling at 10 feet bgs using 10" diameter casing, 7" diameter coring bit.	5" Sch 40 PVC Casing
10	EWC004_SS20100528_11_01			0		SM/ML	Yellowish brown (10YR 5/6), SANDY SILT, moist, stiff to very stiff, fine- to very fine-grained, poorly graded, micaceous, sandy, mottled with oxidation, no stain, no odor.	
12								Neat Cement Grout
14								



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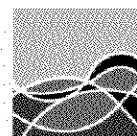
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17								
19						SC	Yellowish brown (10YR 5/8), SANDY CLAY, moist, stiff, slightly plastic to friable, sandy, poorly graded, very fine-grained sand throughout.	
21								
23	EWC004_SS20100528_23_01			0		ML	Yellowish brown (10YR 5/8), SANDY SILT, moist, stiff, slightly plastic to friable, very fine-grained sand throughout.	
25						SC/CL	Yellowish brown (10YR 5/8), SANDY CLAY, moist, stiff, friable to slightly plastic locally, very fine to fine sand throughout, micaceous, no stain, no odor.	
27								
29						SM	Yellowish brown (10YR 5/8), SILTY SAND, moist, medium dense to dense, fine-grained, poorly graded, micaceous, silty, unconsolidated, no stain, no odor.	



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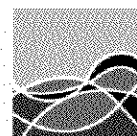
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32						SM	Yellowish brown (10YR 5/8), SILTY SAND, moist, medium dense to dense, fine-grained, poorly graded, micaceous, silty, unconsolidated, no stain, no odor.	
34								
36								
38								
40						CL/SC	Olive to yellowish brown (5Y 4/4-10YR 5/8), CLAY/SANDY CLAY, moist, stiff to very stiff, weakly bedded, oxidized along bedding, some poorly graded very fine- to fine-grained sand throughout, no stain, no odor.	
42	EWC004_SS20100528_43_01			0				
44						SM	Yellowish brown (10YR 5/8), SANDY SILT/SILTY SAND, slightly moist, medium dense to dense, very fine- to fine-grained sand in silt matrix, poorly graded, slightly oxidized, no stain, no odor.	



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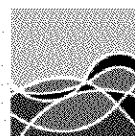
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Depth (ft)	Sample Number	Sample Depth	Blow Count (per foot)	OVM (ppm)	Graphic Log	Soil Classification	Description	Well Completion Details
47						SM	<u>Note:</u> Dark color band (carbonaceous material?) from 47.5 to 48.5 feet.	
49								
51						SP	Brownish yellow (10YR 6/6), SAND, slightly moist, medium dense, very fine- to fine-grained, poorly graded, unconsolidated, micaceous, slightly silty, no stain, no odor.	
53						CL	Light olive (2.5Y 5/4), CLAY, moist, stiff, interbedded with silt, slightly to moderately plastic, locally friable, micro laminated, oxidized along laminations, trace to some very fine to fine sand throughout, no stain, no odor.	
55								
57						SM	Olive brown (2.5Y 4/3), SANDY SILT/ SILTY SAND, moist to wet, medium stiff, very fine- to fine-grained sand, poorly graded, silty, micaceous, no stain, no odor.	
						SP		
						SM/ML	Yellowish brown (10YR 5/8), SAND/SILTY SAND, slightly moist, medium dense to dense, very fine- to fine-grained, poorly graded, micaceous, some silt, no stain, no odor.	
59							Olive brown (2.5Y 4/3), SANDY SILT to SILT with SAND, moist to wet, medium stiff, silty, sandy, very fine- to fine-grained, poorly graded, micaceous, clayey locally, no stain, no odor.	



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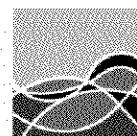
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Depth (ft)	Sample Number	Sample Depth	Blow Count (per foot)	OVM (ppm)	Graphic Log	Soil Classification	Description	Well Completion Details
62	EWC004_SS20100528_62_01			0		SM/ML	Olive brown (2.5Y 4/3), SANDY SILT to SILT with SAND, moist to wet, medium stiff, silty, sandy, very fine- to fine-grained, poorly graded, micaceous, clayey locally, no stain, no odor.	<p>5" Sch 80 PVC Casing</p> <p>Neat Cement Grout</p>
64						SP	Olive brown to yellowish brown (2.5Y 4/3-10YR 5/8), SAND, wet to saturated, medium dense, poorly graded, predominantly medium-grained, micaceous, massive to weakly bedded, no stain, no odor.	
66						CL	Olive brown (2.5Y 4/3), CLAY, moist to wet, medium stiff, slightly to moderately plastic, slightly micaceous, locally oxidized, no stain, no odor.	
68							No recovery.	
70								
72	EWC004_SS20100528_73_01			0		SP	Olive gray (5Y 4/2), SAND, wet to saturated, medium dense, fine- to medium-grained, predominantly medium-grained, poorly graded, micaceous, slightly oxidized, massive, no stain, no odor.	
74								



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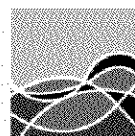
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Depth (ft)	Sample Number	Sample Depth	Blow Count (per foot)	OVM (ppm)	Graphic Log	Soil Classification	Description	Well Completion Details
77	EWC004_SS20100528_78_01			0		ML/CL	Olive (5Y 4/4), CLAYEY SILT/SILTY CLAY, moist, stiff, micro laminated, interbedded silt and clay, locally friable, locally moderately plastic, micaceous, oxidized along laminations, trace to some very fine- to fine-grained sand, no stain, no odor.	<p>5" Sch 40 PVC Casing</p> <p>Neat Cement Grout</p> <p>Temp. conductor casing was set at 88.5 feet bgs</p> <p>3/8" Bentonite Pellets</p> <p>10" Diam.</p>
79						SC	Olive (5YR 4/3), SANDY CLAY/CLAYEY SAND, wet to saturated, medium dense/medium stiff to stiff, friable to slightly plastic, shell debris throughout, sand is fine- to medium-grained, no stain, no odor.	
81						CL	Olive (5Y 4/3), CLAY, wet, medium stiff, moderately plastic, micaceous, shell debris throughout, no stain, no odor.	
83						SP/SM	Yellowish brown (10YR 5/8), SAND/SILTY SAND, wet, medium dense to dense, fine- to medium-grained, shell debris throughout, some silt to silty, micaceous, no stain, no odor.	
85								
87						ML/CL	Yellowish brown (10YR 5/8), SILTY CLAY/CLAYEY SILT, moist, stiff, micro-laminated, interbedded silt/clay, locally friable to moderately plastic, micaceous, oxidized along laminations, trace to some very fine- to fine-grained sand, no stain, no odor.	
89								



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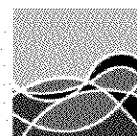
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92	EWC004_SS20100528_93_01		0			SP	Olive to yellowish brown, SAND/SAND with SILT, wet, medium dense to dense, poorly graded, very fine to fine gravel, micaceous, silty, no stain, no odor.	<p>#60 Transitions Sand</p> <p>9" Diam. below temp. conductor casing</p> <p>#2/16 Sand</p> <p>5" Stainless Steel 0.02 Slot Continuous Wire-wrap Screen</p>
94								
96	EWC004_SS20100528_96_01							
98	EWC004_SS20100528_98_01		0					
100								
102								
104								

Note: End of day 5/28/10, 10" temporary conductor casing set at 88.5 feet bgs. Resume drilling below 88.5 feet with 9" casing and 7" core system.



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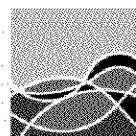
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Depth (ft)	Sample Number	Sample Depth	Blow Count (per foot)	OVM (ppm)	Graphic Log	Soil Classification	Description	Well Completion Details
107	EWC004_SS20100529_106_01					SP	Olive to yellowish brown, SAND/SAND with SILT, wet, medium dense to dense, poorly graded, very fine to fine gravel, micaceous, silty, no stain, no odor.	
109								
111	EWC004_SS20100529_111_01					SM	Olive (5Y 4/4), SILTY SAND, wet, medium dense to dense, very fine- to fine-grained, poorly graded, silty, micaceous, shell debris throughout, no stain, no odor.	
113						ML	Olive (5Y 4/4), SILT, moist, stiff, friable, massive to weakly bedded, oxidized along laminations, micaceous, trace to some very fine- to fine-grained sand, no stain, no odor.	
115								
117						SP	Olive to olive yellow (5Y 6/6-5Y 5/4), SAND, wet to saturated, medium dense to dense, fine- to medium-grained, poorly graded, oxidized locally, massive to weakly bedded, micaceous, locally well cemented with shell debris, no stain, no odor.	
119						SC	Olive (5Y 4/4), SANDY CLAY, fine- to medium-grained sand in clayey silty matrix, micaceous, no stain, no odor.	
						CL	Olive yellow to olive (5Y 6/8-5Y 4/4), CLAY, moist, very stiff, slightly to moderately plastic, micaceous, mottled/variegated with oxidation, weakly bedded to massive, no stain, no odor.	



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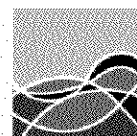
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Depth (ft)	Sample Number	Sample Depth	Blow Count (per foot)	OVM (ppm)	Graphic Log	Soil Classification	Description	Well Completion Details
122						ML	Olive to dark gray (5Y 4/4-2.5Y 4/1), SANDY SILT, interbedded silt and silty sand, very fine- to fine-grained, micaceous, no stain, no odor.	#2/16 Sand
124								
126								3/8" Bentonite Pellets
128								
130								
132								
134								

Notes: Total depth at 127 feet. Groundwater encountered at approximately 64 feet bgs. Temporary conductor casing set at 88.5 feet. Conductor casing removed and boring completed as an extraction well.



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